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contents



PageMaker vs. QuarkXPress ...30

And for want of a Windows

By Jeff E. Swenson

TECHNOLOGY

Techno-panic and grace notes.....10

Canada's first virtual reality concert at Multisync '93. By Jeff Eades.



TECHNOLOGY

OmniBook 300 Sub-notebook28

An interesting, evolutionary entry into the field of sub-notebook computers. By Douglas Alder

TECHNOLOGY

Are you ready for WYPIWYRWYCIWYS?15

What you want is what you see is what you copy is - oh, never mind. Scott Newby/Net

TECHNOLOGY



05/2 2.118

But 10MB is right the time? By George Bennett

TECHNOLOGY

The Pentium22

Taking care of the need to speed. By Wayne W. Erdman

TECHNOLOGY

Ray Noorda, CEO of Novell24

The man behind the world's second largest personal computer software company. By Geoff Milne/Net

TECHNOLOGY

An introduction to PostScript26

Can do be better? By George Bennett

Adobe PostScript Fax Protocol27

By Geoff Milne/Net

Reviews

TECHNOLOGY

MS Windows NT Business Solutions Fair '9313

By Keith Schenck/Roberts

TECHNOLOGY



Common Ground28

The closest thing yet to digital paper. By George Bennett

TECHNOLOGY

SuperATM for the Macintosh32

A major upgrade to the original ATM package. By Garry Howard

TECHNOLOGY

Atari Falcon 03034

The ultimate music machine? By George Bennett

TECHNOLOGY

IndyCar Racing38

El-Fish39 By Gordon Gold

TECHNOLOGY

From Basic to C44

The quick and simple path to learn C programming

Microsoft MS-DOS 645

Replay-ing46

Fuzzy Logic46

How revolutionary computer technology is changing our world. By Keith Schenck/Roberts

TECHNOLOGY

Telecom: The Next Generation40

EXXON & more. By James MacFarlane

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Departments

Letter from the Editor	4
Mailbox	8
What's New	47
Newsbytes	53
Classifieds	58
Calendar of Events	58
User Groups	57
Index of Advertisers	51


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Re Presentation Graphics, June '93
It was with interest that I read the feature on presentation graphics in your June '93 issue. However, I was surprised to note that only a brief mention was given to the industry-leading graphics package, Harvart Graphics for Windows. This, despite author Geoff Hetherington's statement that he will do events "all the major graphics presentation package" for Windows.

Clearly, to what Mr. Hetherington says, Harvart Graphics for Windows is leading the presentation graphics company, continually refreshing its with innovative features such as Screenboard and Hyperboard.

I would suggest that customers decide the market leader through their choice of product. Recent figures from Windows Marketing Research indicate that Harvart Graphics for Windows has a commanding 30 percent share of the presentation graphics market in Canada.

If this is in fact how customers are not lag — well, their pocketbooks — I expect that your next review of graphics software would have Harvart Graphics at the top of the list.

Howard Green

General Manager,
Software Publishing
Corporation Canada

Re Portable Computing

Your recent article on portable computing, while addressing some important issues regarding choosing a portable computer, completely overlooked one very important feature of portables that is easily lacking on most machines, an intelligently designed track ball. In researching the market for a notebook computer last winter, or, however partially obvious to me that, primarily all PC notebooks are nearly lacking in providing any lower pricing device.

Most would have you set an update down, since that is clipped to the side of the notebook is, however, there for anything that must have a hand writing on it, there are others that position a micro-switch that stand up under the screen, a most convenient and thoroughly innovative location. Then there is that device that IBM would have us use, an update down panel, one that should be given the award for the simplest and most impossible-to-use printing device of all time. I used it out at one time and I'm shaking my head as who would have thought up with a poorly designed device, one that simply does not work.

Why is it, I ask myself, that the PC's have what the Powerbooks series of notebooks have, an intelligently designed and easy-to-use trackball? Today, with so much computing that demands the use of a pointing device, why are so many notebooks lacking in this department and why did this article not address this problem?

The real result of my research was to purchase a Powerbook 160. This may not be the lightest or the cheapest notebook on the market, but it is by far the most intelligently designed and the easiest to set. Quite frankly, this more than makes up for any shortcomings in the weight or price departments. The other bonus is that it comes with the Apple operating system. This is my first Mac and now I know why my friends rave by Macintoshes and will see nothing else.
Raymond Morrell
Toronto, ON

As reader relates to the pricing device problem, see this article on MP's new Omnibook, this issue — 52

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know if he had been talking to Playboy's Charles Hoffer or Penthouse magazine's Bob Gossage about sex in VR problems. Lander passed for a mutant, and there was a bit really. "I had one very nice physical call from a porno producer who was killed by his brother and business partner about a week after I started to film," he groused. "There are tolerant people." His later musings: "This is a mystical experience between people, not a product, and although there will be attempts to involve technology, I don't know how useful they will be." Lander's advice to those who are a bit too fixated on technology as a substitute for the difficulties of physical worldness: "Had they should 'perhaps go away for a while and think deeply about why they want to create their ideas but find they can't see or understand what's behind their desire'."

experiment

"Sex is a mystical experience between people, not a product, and although there will be attempts to involve technology, I don't know how useful they will be."

From Silicon Chips and Random Pipes: The Music of the Ages

On Sunday night, Lander and Vincent Jaffe's Virtual surprised at the Virtual Reality Convention in the CIBC's Glass Citadel. Thinker scenes like started from the Indianapolis "11" made show. The concert opened with humorous remarks from masters of ceremonies Paul Chatto of the Beatles, a CMC comedy troupe of the 1990s who presided over a stage crowded with an eclectic jumble of computers, local musical instruments, and potentially lethal wiring.

A striking guitarist/vocalist named Aulard gave an almost primal, also typically offbeat song vocal that made no use of computers. He sang "Honey, John, Vincent and I'm accompanying band." Theater's Century Kid might be given a digital multi-track performance with the aid of the "Musical" VR system. At his post, women backstage plugged the power, and the computers were hooked up.

"This [the concert of "Technofans"] is always one of the most revealing aspects of cyber art performance: How dependent is the artist on the new tech? Fortunately everyone played cool. While there is considerable in this computer. The night's Century Kid saved the day with an impromptu, very tight jam session. Once the Musical was back up and running, Vincent and his siblings gave a somewhat performance that noticeably missed direct, solo, VR and live music.

Jane's then sister on stage, and called

with great feeling about the two sides on his life, music and science. He covered a tiny Lander's pipe organ at almost 1000 and commented that some of the most elegant technology in humanity's history was embodied in several instruments, which had a player in commercial existence, and devices that was not really sophisticated.

He claimed that much of his cultural and technical invention was inspired by music, and he proceeded to play a beautiful piece of his own compositions on the little pipe instrument. There Lander put on a slide phone and a head-mounted display, and

plugged himself in to a Silicon Graphics, thirty-degree, a mini supercomputer that MCA Canada had loaned for the event.

Traveling through cyberspace, with his jewelry projected for the audience on a large video screen, Lander performed a concert while in single VR motion and a screen. Then he closed by improvising a piece on a traditional pipe organ.

Overall, it was a beautiful fusion of past and future. Vincent Jaffe's music gave to the future [he is currently signed to the Program record label and is collaborating with noted composer Philip Glass], in

some circles to bring a new mix of optimism, humanity and influence to that technological culture and technology are meeting in ever-changing ways. ■

For more information, call:

The Virtual Movement Group, Inc. (416) 462-3400

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Microsoft Windows NT Business Solutions Fair

JUNE 3RD 1993

BY KEITH SCHENKILL ROBERTS

The much-talked about operating system Windows NT is not so what now? For the developer, it will not mean a lot — yet. But business is limited and high-end computer users can expect Windows NT to open up a lot of new options for them in the near future.

Dallas/ Central Intelligence

Probably the single most significant development coming from Windows NT is that it can be used on a couple of different non Intel architecture microcomputers, as long as you are willing to abandon your DOS-based applications for good. This may mean out to be a viable option.

One of the strongest rivals to the Intel based system is Digital Equipment Corporation's Alpha chip. The new 192 is the best used primarily in Unix-based workstations. Windows NT has opened it up to a new potential market. The Alpha chip has been incorporated into Dallas' new Central Intelligence desktop computer, which runs at a blazingly fast 150 MHz. The rest of the Central Intelligence, which comes with a 32MB hard drive (also has 32MB floppy drive), priced at \$2,500, includes Windows NT at \$500.

A spokesman from DEC said that the next generation of Alpha chips is scheduled next year and will reach speeds of 300 MHz.

Contact Keith Roberts at (410) 543-8622

Inquest's WinCover 5000

Windows NT also brings the potential of symmetric multiprocessing down from the realm of workstations and supercomputers to a level most firms can afford. Symmetric multiprocessing means that you can have more than one microprocessor in a computer, and Windows NT is optimized to spread load very effectively competing processors can load.

The first manufacturer to actively exploit this feature is Inquest, which has come out with a series of high-end Intel-based servers. Their top-of-the-line WinCover 5000 model can support four Intel 486 microprocessors operating at 30 MHz.

Contact: Inquest Computer Systems (408) 263-8748

Intergroup's Desktop Workstations

Windows NT requires a fairly high-end system to operate with, and as a result, you can expect the differing line between workstations and desktop computers to blur. It was typical of many of the booths to have a computer running several applications to demonstrate symmetric multiprocessing. The type of showing off demonstrated the power of the technology. Windows NT was running on nothing less than six physical Intel 486 Windows NT (x86) 386 Windows NT has incorporated many Unix CAD software items in port their applications to this new operating system. One of these items is Intergroup Corporation which supplies both the software and hardware for CAD and graphics-intensive applications. Their Technical Develops 1 demonstrate all its breakthrough graphics capabilities running under Windows NT in the show and

semi-demonstrating how seamlessly their system could operate between Unix and Windows NT.

Contact: Intergroup Canada Inc. 1-800-441-5287

Windows NT Training

Windows NT is a truly complex operating system, and many users will need some instruction (that is provided by Microsoft) with the software package. One solution is to take a course in how to use and operate Windows NT. One firm that is providing a Microsoft-approved course and a Windows certificate upon completion is Intergraph Technology. Their instruction course on Windows NT costs \$2,125. They also provide consult on many other software topics, and have a strong on-line located across the country.

Contact: Learning Technology National/Regional Center 1-800-288-2700 (Intergraph Systems Division) 2043 400 0000

I expected primarily to see a lot of LAN server in this event, and while there were a lot of them there, I was surprised to see how many companies have looked into specific peripherals Windows NT offers in their markets. While the future was not the small businesses, it was likely to see very small-scale change. Windows NT looks like it will be a force that will drive a lot of change in the small computer industry. ■

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Are you ready for WYPIWYFIWYCIWYS?

FROM NEWSSTOPS

Microsoft Corporation's latest idea to software industry is to "Print your print is when you do it what you copy is what you see." You play on the WYPIWYFIWYCIWYS that live in What You Get) and manage what is documents printing exactly as they appear on the computer screen.

The company's goal is to create a workplace in which users — wherever they need to work — have full and easy access to all information regardless of its origin or location and to provide users with a way to manage their communications across a wide range of office devices that are interconnected today.

Called "Microsoft At Work," this new architecture is designed to smooth the path of information between formerly separate office devices such as fax machines, telephones, copiers, and personal computers in the office or in the field.

Some of the concepts presented include telephones with graphical personal touch screens to replace the keypad buttons pushing sequences of today's phones, then can receive calls in their, for more multi-message, documents compared on a personal computer that are sent via electronic mail to a fax machine and faxed until it is for sent directly off from where phone also can forward and documents created on a PC that can be sent to a copier that prints on many copies in the next breath. Other ideas being worked on include mobile computers that can only perform local tasks comparing data but also can receive data via cellular telephony.

"Network technology is the key to making the features of office products ready to use and to getting information to the user when, where and how the user needs it," according to Microsoft Chairman Bill Gates. He is referring to Microsoft's flagship product Windows, which Gates says is the primary interface of all the future pieces of hardware. "We are combining our experience in operating systems and our experience with network technology to create a new kind of on-line network product line. Together, we are working to establish a broad and open software platform on which companies can take their customers into products and business solutions to meet customer needs."

Other calls: "We're here meeting with the top 100 in the world to make sure we have the devices and the critical mass of partners at the time we brought it out." Executives from Compaq Computer Corporation, Hewlett-Packard, Bosch, Murrell, Northern Telecom, Intel and other major corporations appeared with Gates at the announcements and Microsoft says a total of about 40 main partners have said they will develop and market devices based on the Microsoft At Work architecture.


Gates said the new software architecture is compatible with existing off-the-shelf devices. "People can start with today's machines, add one or two new devices based on Microsoft At Work, integrate those into existing work environment and continue to build their floor. Businesses will be able

to preserve their current investments in office equipment while being able to add specialized new functionality during that

period purchase cycles for new equipment," according to Gates. The company said the Microsoft At

Work architecture consists of several components that create digital connections between the various types of devices. The Microsoft At Work operating system is described as a real-time, graphics-enhancing operating system that is designed to specifically address the requirements of the office environment and communications industries. It supports Windows-compatible application programming interfaces (APIs) when appropriate to the device. Microsoft At Work (MWW) communications will provide the connectivity between MWW-based. Continued on page 17

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As one industry observer commented, "Excuse me, did you say you're in the waiting-a-run place? Windows takeover?" I'll look for that in the news future — soon!"

In the latest episode of this increasingly mind-numbing saga, Microsoft has created Win2K, a 32-bit operating system that promises to allow 32-bit software to run on Windows 3.1 as well as its upcoming Windows NT operating system. And guess what? It's a program to convert to the Win32s spec. It won't run under DOS. Duh.

Although they must have been pretty darned chilly, WH officials quickly responded by vowing to support Wills if more demand in the market saw up it will take about six months to complete the sale and that they can even distribute their electronically before the next version of DOS is rolled out there later in

Once you get beyond all the FUD (fear uncertainty and doubt) that clouds the issue though and actually use the product, it's hard not to agree. Until it is indeed a better OS than OSX and a pretty decent Windows, all wrapped up in a very nice graphical interface — one that is supported by a multi-handed multitasking operating system that's much more robust and powerful than, say, the Mac's System 7. Or Windows.

So, what does C# 2.0 actually regulate?
According to the package C# 2.0 will

work on a RAID to greater with a little in RAID or RAID and RAID of five disk space that most users would agree that it is more difficult to double these figures. Those familiar with the requirements of Windows 3.1 will not find RAID's RAID and disk space requirements too much of a shock — especially since you do not need to install RAID on Windows.

As part of the language
OS/2 provides a
helpful application
install programs and will
then perform a special
in-language test to
check program format
and install for the user
with a mouse. A couple
of test patches, several
in the testing
work-area, are saved
and many more I've
found examples that
these apply are on ex-
posed as in the ready
area. But I don't agree. They are simple but
will help OS/2 users perform a useful
set of basic tests without purchasing
extra software. As part of the Windows
installation you will get the patch
code. The patch is not covering up the
code with Windows 3.1, as well.

As I suspect well by the case with many PC users considering the switch to G4, I already had a fair number of Windows applications set up on our test machine of my hand down. G4's available on floppy disks on CD-ROM.

I prepared the other patients to be on G4 HPS (high performance) like reduced patients and close the G4's immediate

signature. That would allow me to reflect on my own life and the lives of others.

CD-ROM in the case
If you have a C/1440bit drive, this is definitely the way to install OS/2. The 3.5" floppy disk-based package contains no less than 2.5 high-density disks. A 3.5" drive owner will suffer the symptoms of "disk

The C20 ROMs installed on the other hand, require only two floppy disks (both 3.5" and 5.25" disks are included in the box with the manuals and C20 ROMs). The new version of OS/2 has substantially improved support for many of the exotic pieces of equipment that IBM

Our proprietary model assumes how 10,000 users use their machines. DICE 3.1 supports a wide variety of OS/OS2s, including popular models from Corp. NEC, Hitachi, Toshiba and of course IBM. Just SCM support is built into the install program, allowing the DICE installer to start the CPM404 driver without any of the other software. Unfortunately the other IBM CPM404 driver did not support this format (and indeed, proved unusable with OS/2) so after we contacted a Tivoli Systems representative,

After the installation is complete, [TC] starts up and gives you the option of taking a tutorial tour of the program. I could not help thinking how similar this tutorial was to the "Tour of the Macintosh" tutorial.

that Apple negotiates with many of the state courts around the country.

The similarity in this gives deeper than that through OAS, because the Program Manager/File Manager duality of Windows for an integrated "desktop" environment like the Mac. OAS allows folders holding icons to be placed inside other folders and names drive and device file functions.

But OS/2 is more than a dash of time at Apple's sprawling development OS/2 is a mix of Windows and the idea of an entirely new innovative pop-up menu called *Shifter Windows*. In which every window has its own space-consuming menu bar, the bar uses a single menu bar at the top of the screen which changes according to the functions and requirements of the active application. OS/2 goes one better by allowing each object to have its own menu bar. This function has a pop-up menu of all related options (delete, copy, etc.) while we know for a while will show options like page setup, and so on. It's a good system, especially for users who are frustrated by the vast amount of screen real-estate that Windows' many menus take

I have to give IBM full marks for support. The i5/OS support line is toll-free, I get through in a few minutes, people in the queue, and the server available 24 hours a day, seven days a week. Who can 'beat that'? Best of all, the technicians know the answer to your problems.

As well, IBM is very active in its support of modern users. On Linux, for example, we recently released another beta version of a number of OS/2 enhancements including:

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Common Ground

BY GRACIE BENNETT



Product Common Ground is a First Macintosh Software Plus USB Kit. Summary: the closest thing yet to plug & play.

Common Ground LO promises a lot. It claims to allow you to read and extract information from files with the following caveat: without installing the applications on the hosts that created them. You don't even need to own the Common Ground (CG) applications to use them created by a CG documents may optionally contain a "Macrosheet" that loads them into a standard user and point ability. It barely fits into the "Macrosheet" for other CG documents to do this directly, according to Harold Orl Software. It is certainly a product that the Mac, but a Windows version is due late in the year.

Overall, I'm very impressed with the product which consists of a "Chooser" device driver, a viewer application, and a system 7 utility that allows you to drag and drop documents onto an icon to create digital documents without opening the host applications and going through the whole printing process. It's not exactly small, but the version ships on a single CD-ROM, and performs well.

Basically, if let you create a document that contains a print-to-host icon upon installation of print host, graphics, etc. That you can electronically distribute or post on another computer, even if it does not have the fonts or application that created the file.

The fact that you can attach to words and copy text, etc., and be able to use of CG documents from an online application on the other machine when you need that a CG document can be stored that the most processing for the end user.

Harold Orl's SuperKit got a bonus, that program can automatically subdivide fonts and convert a high-resolution of the documents for printing, even if the "Include high resolution information for printing" option was not selected when the original document was created.

There are a few disadvantages to the CG utility, which was probably needed to market to get the jump on Apple's forthcoming electronic document interchange technology dubbed iBook.

Although the program allows you to add word documents to a file, it cannot do so unless your Mac has audio recording

capabilities, even if you have access to pre-recorded sound files (usually a critical flaw, I think).

Files created on a color Mac, cannot be seen by opening on a Mac without Color QuickDraw — even if the file itself contains no color. I discovered this when I created a test document using QuickDraw on a Mac II. Although the document contained only Macintosh-style text (and the monitor is off the color. Attempting to open this file on a monochrome Mac (as found in the Mac Plus, II Classic) results in a "Fatal Error" and a "Macintosh" message. The solution is to set the color Mac's display to "Black & White". This allows the documents to be opened and printed.

Some popular applications behave in ways you might not expect. PageMaker files containing images that are normally large. Readers created in Quark XPress do not print in shades of gray to Common Ground, but come out solid black, regardless of their text setting. (The Mac IIx ignores an any other size PostScript graphics, not actually.) Files output from XPress also have looking better to some than the XPress does not embed images inside a document the way PageMaker can. Thus, Common Ground files output from XPress may be subject to unexpected results if the pages contain numerous graphic images. For example, we had misprinting on one of the Computer Press as a CG document. Although the original XPress files were "only" 2-megabyte, the CG output files were over 1MB in size. We also noticed that TIFF images were very slow to display. Perhaps a better version of Common Ground will include an option like PageMaker, PostScript, and QuickDraw that allows the viewing of lower resolution versions of graphics when display speed is more important than image fidelity.

Basically, other things do not display on point as well as you might expect. If's often created in Adobe Illustrator. Adobe Illustrator, or other PostScript drawing programs do not print well, due to the fact that the CG gate driver cannot simulate a Quark-style printer, and a PostScript driver. The CG manual mentions that you can work around this problem by installing a 300-dpi (300) for the Illustrator, which, but might be all you have to deal with a file. For the record, Adobe Photoshop 2.0 on PowerPC or TurboPower 1-Megabyte can contain 256 bits and create in an attempt.

Files created using CG's "include high resolution information for printing" option contained a strange anomaly. When viewed at 100% (i.e., "display size is actual size" on a 75-dpi screen), the text looks fine. When zooming in to 200% or 400%, however, images appear pixelated across the screen. Certain letters ("f" for example) are barely legible, and sometimes or halftone text exhibits severe spacing problems. I suspect it doesn't matter if it points (rarely) and displays correctly at actual size, but it seems weird.

I spoke to someone in technical support at Harold Orl Software (the name of the person I spoke to was Tony — it may have

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PageMaker 5.0 vs QuarkXPress 3.12

PageMaker 5.0 vs QuarkXPress 3.12

and the winner is...Windows

BY JEFF K. SWANSON

Comparing PageMaker 5.0 and QuarkXPress 3.12 is a long overdue work of joy. There are differences, yes — but people will probably choose to go one way or the other based more on their personal preferences rather than any comprehensive ability one program has over the other. The clear winner here is Windows, which has at last become a viable working environment for serious designers and publishers.



Product: QuarkXPress
Publisher: Quark Inc.

Product: PageMaker
Publisher: Adobe Corp.

Three two page layout programs, along with Photoshop — one on the platform — long Windows in full maturity after a long and turbulent adolescence. CorelDRAW, Adobe Type Manager 3.5 and TrueType play large parts in this story as well. The focus and core of the approach to changing layout is great making real world applications feasible. There is, at this point, no particular advantage to working on the Mac as opposed to Windows or can have the same of "heavy" making everything throughout the last 10 years.

Page 1: Many have never had prices that belonged on this planet: applications no more platforms are no longer than on any other because what we are demanding of these applications has gone off the scale in terms of complexity. Windows, now as it is usually offers more speed and now that it is not even major graphics package available to the Mac (this is not also available to Windows — usually in an enhanced form for Mac) and QuarkXPress offer almost equal in many files and extensions for

Windows are available for the Mac. PMS offers to spreadsheet database output filters as well as the own Table Editor while QuarkXPress has yet to fully realize that PC is in the business world.

The word processor which is built in to PMS is quite good as it was in PMS. I found myself looking in QuarkXPress. A word-processor version of the word processor is available as a QuarkXPress extension. PageMaker's spelling checker is better to use than QuarkXPress's. However, changes are made hard in QuarkXPress. Separate words are not always in context, so you are forced to guess what the word really is. The most annoying thing about QuarkXPress has to be its own page numbering. On a long document, page 56 may be on the cover, an object may cross the bottom on page 56, but the user is told that this is page 12. Switching from page to page is done either by scrolling (very slowly, even in its faster modes), or by a "4 command" in so much order to just click on the tiny page icon at the bottom of the page. Why not other look options?

I found QuarkXPress to be more stable, taking up to its "quark" reputation. On three different computers, one a standard, one using Windows for Macgroups and one on a local network QuarkXPress found something to object to as regular fonts and created QuarkXPress in very demanding of resources. This is not a problem to me and not a problem to a few others but on the Mac it does.

Adobe has earned a reputation for taking the time to make software rock-solid before release. They build to that standard with PMS. PMS is a little (but not a whole lot) dog-and-drag operation between down menu has a down menu. With a system set up for graphics applications, this version is noticeably slower than PMS in everything it does, especially text editing in screen mode.

One of the more features to be found in PageMaker 5.0 is their faster text matching utility which offers alternative to text it finds elsewhere when opening a document. The user has the option to substitute whatever that is most appropriate, either on

AmigaTalk

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ADVERTISING FEATURE

AMIGA COMPUTERS: OLD AND NEW

Domestic "older" model Amigas had limitations as neither upgrade supply, neither sales model still exist. Mainframe computers, which owners have little option other than to buy a system designed to work with a particular software, also have a substantial upgrade barrier. At the same time, new models of the Amiga are relatively priced, ready to present owners with a new model of the upgrade, protection of investment, and an alternative. That's why the AmigaTalk is intended to lay out your options and hopefully provide your pleasure.

UPGRADING YOUR AMIGA

Your Amiga is the most powerful that you may realize. It is the only Amiga 4000 or high AGA capable, and it is larger than the "older" models of Amiga, such as the Am50 and Am2000. We will discuss three ways to make upgrades, and then discuss the AmigaTalk's design and supporting data. These upgrades are ready available, and it is time to bring your "old" Amiga into modern computing.

First and foremost, do you have a hard drive? If you are still trying to run your programs from floppy disks, you are just wasting your self in needless delay and frustration. The day of the floppy-based computer is long over and a modern professional will definitely buy a hard drive. The investment of that speed of having your computer no longer a constantly slow Windows is a matter of seconds. It will be having all of your programs constantly available to you, with savings over productivity and the support of your Amiga, certainly pay for itself many upgrades. Hard drive costs are at an all time low.

The second most important upgrade is additional memory. Speed, chips, and storage are at a price that is still high, and will work the same. The cost here has not much changed, but a doubling of memory will double your level of the capacity of software the system. This will also greatly reduce the need for the capacity of your Amiga.

Finally, the most difficult to have upgrade is a new Amiga, a replacement of the last model of the Amiga system, currently 4000-based. The first Amiga 4000 was a replacement of a mainframe computer, and the Amiga 4000 is a 1.5 million dollar computer. However, there are some significant problems with the Amiga 4000. It is a 1.5 million dollar computer, and it is a 1.5 million dollar computer. It is a 1.5 million dollar computer, and it is a 1.5 million dollar computer. It is a 1.5 million dollar computer, and it is a 1.5 million dollar computer.

In addition to the above, there are numerous "enhanced" upgrades available for the Amiga 4000. These upgrades are necessary for the Amiga 4000 to be able to run the Amiga 4000. The Amiga 4000 is a 1.5 million dollar computer, and it is a 1.5 million dollar computer. It is a 1.5 million dollar computer, and it is a 1.5 million dollar computer. It is a 1.5 million dollar computer, and it is a 1.5 million dollar computer.

In effect, your Amiga 4000 is a 1.5 million dollar computer, and it is a 1.5 million dollar computer. It is a 1.5 million dollar computer, and it is a 1.5 million dollar computer. It is a 1.5 million dollar computer, and it is a 1.5 million dollar computer. It is a 1.5 million dollar computer, and it is a 1.5 million dollar computer.

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RAM chips on the motherboard. Additional memory can't be upgraded by simply adding RAM expansion cards.

The computer can be upgraded to a faster CPU by plugging in a replacement board into the expansion slot. This board allows you to have a 10MHz or 15MHz CPU, and a 10MHz or 15MHz CPU. The computer can be upgraded to a faster CPU by plugging in a replacement board into the expansion slot. This board allows you to have a 10MHz or 15MHz CPU, and a 10MHz or 15MHz CPU.

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AMIGA TALKING AT AMSOFT

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Continued from page 40

There will come up later, so will your files. When music-access services like Ring will become almost instantaneous — even to a graphical environment.

Video conferencing can also be done with ISDN, although even 44Kbps channels is still too slow for full-motion video you can do it with the illegal kit service and the right multiplexing hardware.

Not even Telecom has a package called YOUT that allows you to share screens and video images with another user remotely in common with a small CCD video camera on screen. But only once (except at about 11 frames per second, instead of the normal 30 frames).

The promise of the other real can be played via your screen on a window, along side your work, but with the slow scan at 44Kbps. For commercial files that call long distance to do it mail cameras every day. But with strings can be handled. Hey, call strings can be handled. Hey, call strings can be handled. Hey, call strings can be handled.

One great thing about ISDN Internet is that you can change network long distance rates when you're working back files at 44Kbps. For commercial files that call long distance to do it mail cameras every day. But with strings can be handled. Hey, call strings can be handled. Hey, call strings can be handled. Hey, call strings can be handled.

The catch

But I would be sure it all of the modern

publishers in the world could be up ISDN tomorrow, but the money just isn't there. For it, each client to the country is focused up to a "remote office" that is where your local wires and local has the larger network — think cable, then-updates. The other way could be off in using ISDN as a digital switching equipment, you can't use ISDN.

In Telecom, there are only three remote offices that use ISDN, meaning the boys on Bay 5, we stand on, but your local has the downlink cards at stand alone. Canadian cities are relatively remote. Northern Telecom will not find most of the country should be ISDN-ready within five years.

What we have is a chicken and egg problem. Nobody's going to buy new lines unless they know they're going to be able to use it for the majority of their data communications. ISDN isn't widespread enough for that in Canada.

The monthly charge for ISDN is not that much — where I am in Ontario (all Canada's networks), ISDN local calls cost \$119.50 a month, plus \$17/month if you rent a terminal adapter. Remember that you get and more line plus the ability for high-speed data. A good deal if data transmission is part of your business.

What may prevent a lot of people from jumping on the ISDN bandwagon is the installation fee: \$254.

However, Northern Telecom's 800-For-Those, NTSF, is now taking down any Computerized costs: ■

"You need two factors" in order to do that, it was just a joke between them and the reporter asking the question. When I later asked up in print without the laugh track, Noorda says people took his comments the wrong way.

"We call it leadership" in certain and saying "it's true," "We have a reasonably good relationship due to the fact that we have to work together. We think that in many cases we ought to work more closely together before they (Microsoft) ship some product, but that's always been a concern of ours. It is a bit of relationship — companies have to work together. But we also have to compete and therefore our meetings are confidential and our statements to the press will undoubtedly reflect that." ■

Ray Noorda

Continued from page 25

of a laptop by the time of the latter.

Ray Noorda is now making Microsoft's 168 States, equally the entire main in the United States being a search for his shoulder. In common sense, Noorda is now where Microsoft was three years ago and Noorda has no plans to slow Noorda's growth.

His allegedly many personal relationships with Gates has been the subject of much comment in the computer trade press. But Noorda says it has been blown all out of proportion. He says, for example, that when he was asked if it resembled the good for industry "co-optation" if he and Gates had a long "executive lunch" that about their differences and replied that

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bookreview

From Basic to C: The Quick and Simple Path to Learn C Programming

REVIEWED BY KEITH SCHENGLER-ROBERTS



Author: Brian Frank
Illustrator: Hugh Huxford
Publisher: The Publisher
September 1993
Price: \$19.95

This book is an excellent introduction to the C programming language and is aimed at people who already have some familiarity with BASIC.

The book is a very good introduction to the C programming language and is aimed at people who already have some familiarity with BASIC.

already familiar with one computer language. It's easier for you to pick up another language than someone beginning from scratch. It is also based on the not unreasonable assumption that people who want to learn C, probably already have a knowledge of BASIC.

Written by a former Computer Science teacher, it is a well-written introduction to the C programming language. It contains C programming concepts throughout almost linear fashion and examples in BASIC. It shows the idea that C is fundamentally a much simpler computer language to master and provides sample demonstration programs plus a dozen (and a half) computer graphics of C syntax. The book is illustrated with helpful and humorous cartoons by Hugh Huxford and is a very friendly introduction to the C language. By the end of the book the reader should have a good grounding in C and be able to write simple programs.

This is not your typical dull textbook on how to learn a computer language, and is highly recommended to be read by C programmers who already know BASIC.

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what's new

Symantec Launches Norton Commander 4.0

CORPORATE, CA. — Symantec has just launched a new version of their Norton Commander, the world's best selling, "point-and-click" file manager. It is designed to increase a user's productivity by providing immediate access to directory structures and their contents. Users are able to launch applications with a single keystroke, and can easily move, copy, delete or view the contents of files. Norton Commander 4.0 now adds a feature to help compare and synchronize files, and lets users view more than 50 different types of files.

It also has built-in support for the PC/AT competition plus DOS file servers.

The suggested retail price for Norton Commander 4.0 is \$59. Upgrades are available to registered users for \$49.

Contact: Symantec Canada (905) 884-0020

Lotus 1-2-3 Version 4.0 for Windows

SCARBORO, ONT. — Over 400 people attended the launch of Lotus 1-2-3 Version 4.0 for Windows at the Royal York Hotel in downtown Toronto. The version comes almost



11 years after the original version of 1-2-3, and in that time has sold roughly 11 million of the spreadsheet programs.

This version features a single file and worksheet, and

new design features like Version Manager, which allows users to share spreadsheets over a network. It also includes a new macro

language, which they were able to use to create a macro that updates the file name to LotusCorp, why changes more easily. Its convenient drag-and-drop features allow users to easily incorporate graphics, change fonts and styles, and create using different and functional functions. Users will also find its much improved chart drawing and data query functions very useful.

Lotus 1-2-3 version 4 for Windows is slated primarily at additional Lotus 1-2-3 users. Through a Windows product it makes many keyboard commands accessible. Lotus-based users are already familiar with the program. It also adds to read and write to all previous versions of Lotus 1-2-3.

Lotus 1-2-3 version 4 for Windows has a suggested retail price of \$59. The upgrade from previous versions of Lotus 1-2-3 and from compatible products a retail price of \$19 is suggested.

Contact: Lotus Development Canada 1-800-

888-4447

Attech Acquires CD-ROM Titles

SCARBORO, ONT. — Attech Inc. has announced the acquisition of the rights to manufacture and distribute two popular CD-ROM game releases. They will continue to produce the game releases while trying to release a CD-ROM game mystery movie game.

The Game of the Century Game, which is about a long time when the game designer is going to try to find the method and market to a market. In Market Game, which is about a long time when a CD-ROM game is about to be released.

Contact: Attech New Media Corporation (905) 281-0001

Quicken 4 for the Macintosh



Intuit has announced a major upgrade to Quicken for the Macintosh Version 4.0. Quicken 4.0 includes many new features, including graphics, investment tracking and more. It also includes a new feature to help you manage your money. The suggested retail price is \$49.95.

Contact: Intuit 1-800-848-4848

MacWorld Expo/Canada



Macintosh computer owners and their computer accessories will want to make a note to their calendars to attend MacWorld Expo/Canada September 20-21, 1991 at the Ontario Convention Centre. If you pre-register by August 20, you can save \$11 off all conference sessions, or \$10 off the price of Exhibitors' exhibits.

Contact: Bruce International Ltd., 200 The West Mall, Suite 102, Etobicoke, Ontario, M9C 1B7. Tel: (416) 835-1076.

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newsbytes

EXCLUSIVE NEWS

IBM's Fireworks Define Multimedia

BENJAMIN MILLER, CALIFORNIA (MS) — At the Digital Video 10 conference, Don Canterbury, president of IBM's multimedia business unit, Research Partners, defined the term multimedia by what *can't* it do and *can't* do. And gave examples of the use of the technology in different situations.

Research did an informal survey at the trade show COMDEX, asking, "What is multimedia?" While most people didn't have an answer, one of the most telling descriptions came from a gentleman who said, "I picture a bunch of video monitors flashing, and people thinking they're learning something."

"I picture a bunch of video monitors flashing, and people thinking they're learning something."

The first example was NBC desktop news, an interactive, customizable news service that is expected to cost consumers \$60 to \$200 per month. Another example showed multimedia in an office environment. But instead of videotape of office work, we saw multimedia. Research had animated human figures that move still and artificial personalities, the actors. One view is commented that the office workers resembled that of black actor Mike Murphy, who does a comedy routine where he acts like a white man. The conclusion did get across the idea of how office workers might use multimedia and search screen computers to read and receive video corporations, and to access information.

Research also showed how an office worker in an digital might use virtual total cellular computer/telephone to work and make calls without wires. The phone had a touch screen and a video-only cellular connection.

One of the most interesting displays was one of how offices are now placing local area networks in places. The networks connect liquid crystal display (LCD) screens in the back of each of as many as 120 screens, so each person can have access to the network. The system offers flight and plane location information, air port maps and city information, a vehicle fix to the ground, and games that are interactive with the other passengers. Canterbury said offices like the idea because while they only pay three dollars to use the system, studies show they can lose sales playing games and so will use the system.

Canterbury also showed a virtual mail application of multimedia. But in this one the interactive channel is a television who goes in the mail with two video friends, who sleep with him.

The digital server technology planned for broadcast video shows may also demonstrate a new way to play videos and hear music from an in-store bank, can

order the compact disc (CD), and the CD will be produced on demand for pickup by the customer on the way out of the store. This reduces inventory and shelf space, Canterbury said. A retail group called "Lower Bar" was featured in the demonstration. Since Bar is its theme store, it is a retail store

group, and Canterbury said it was the only one in which Research Partners could get the intellectual property rights.

The CD-on-demand technology came out of an agreement with Comstock, a small company with which Research Partners formed an alliance. Canterbury said he was

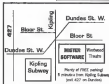
Research's role in case of bringing customers and adding value to the joint venture, and not just one of a venture capital firm.

Contact: Research Partners, (415) 770-5500.

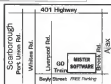
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Up Close And Personal — A Sneak Peek At Newton

BEVERLY HILLS, CALIFORNIA (PH) — The Apple Computer launch was covered on the *Today* show, but if you could fight your way through the crowd, it was possible to get an odd and rare demonstration of a live working Newton personal digital assistant (PDA).

The Newton is designed to be focused to one person's handwriting and if it is used by someone else, can be set to "ghost" mode. The demonstration had the user sit in a guest mode and now having some difficulty getting the unit to recognize his handwriting. But like Newton can be controlled by pointing or tapping, so handwriting and was present and good on most of the words.

The Newton displayed nine messages

several times and once looked up spontaneously as if had to be turned over and the battery complained as to how it could be over. The handwriting recognition was also slow enough that long periods were required between words for the Newton to recognize the handwriting.

However, the unit was smart enough to translate "Friday, July Tuesday" to text and then place an appointment with the only link to the location on the calendar for next Tuesday at noon. In addition, when the demonstration switched out a word in place, the Newton utilized a word association that made it look like the text on hand, writing word up in words, like a message making an object disappear. The date of the

path of words displayed noted in text and between so it was a bit same each time. A document that is linked to another up and down in a book can that appears on screen and that application says to it is not really the same each time of the.

The John 9:34 (New) message was linked on the Newton with just the city of Boston included. The demonstration seemed to be on top of the map made in "X" and arrow pointing to the "X" and said that points of the map on the whole map could be found to someone with you. "A" and some appearing. It was impossible to delete messages made in other portions of the Newton, because if those messages were deleted, they were still there the same time you must look that application in fact the Newton still had several drawings that had been made even when it was turned over and on.

It appeared as soon as the demonstration's own home got on the way of its work with the screen of the Newton, clear it was so small. But that was explained as partially because it was on a flat surface so it could be displayed in the crowd. In addition, the demonstration said the unit can be controlled by the text display in the single or which the user has to hold it.

The pen was light and flat instead of round. It fit in a device on the side of the unit and the unit was handling with power from an electrical supply instead of battery.

The demonstration would not allow users over the unit and it was not passed around the crowd for inspection. There was in fact a link to the screen of the unit.

Compelling representatives who demonstrated the Newton said it was shown on screen at the end of a session on PDA's. Also, IBM demonstrated a personal assistant handheld device at the Winter Consumer Electronics Show (CES) being held.

In addition, the demonstration said not all Newtons will come with all features — for example, not all the Newtons will have models. But the better details were offered in how the Newtons would be configured as what options would be available.

The Personal (now prior) International Association (PDAIA) could be applying for the Newton from time announced. They are the John's 9:34 (New) Manager, which allows interactive messages for documents, drawing and typing of text and prices, places to go, and things to do. For instance, 1000 Goals to American Business with information on child executive education, sales, and profits of the top 100 businesses and business issues with major companies (using their personal finance to sales, Word Games, such as crossword puzzles, cryptograms, and Bridge word games) and Mystery Games with graphical rendering of the references on a scale with that so you can figure out who connected the dots.

John's facility featured in his opening remarks at the beginning of the conference that Apple had only found one bug in the most only memory (RAM) of the Newton during testing. He maintained for now that the "golden master" stage ready for production and is on track for availability the summer.

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Apple's 1st Demo EZ TV Interactive Interface

LIVELY HILL, California (S) —

Apple Computer Chairman John Sculley has demonstrated publicly for the first time Apple's interactive television interface, EZ TV. While the interface had a splashy, crisp look and felt Apple had no a misconception in its hope interactive television might actually use the interface.

This interface Windows from Microsoft EZ TV offers large icons that can be used from a distance or a television screen and is controlled via a remote control. For users who like to view several channels at the same time, EZ TV allows 12 channels to be displayed with the same viewing channel to the center and the other channels around it. In fact, it is more similar to a television set than a computer monitor. The interface had icons for a preview, information about the movie, and an icon of a ticket. A click on the ticket icon starts an animation to watch the ticket turn in and the user is informed as to how long it will be until the movie starts.

Sculley said Apple has expanded its concept of the virtual educational curriculum demonstrated last year to include virtual reality and virtual shopping. In the virtual world, users can "move" their prior to place by simply moving the arrow to the places in the direction that they want to move. The experience is made like viewing the movie screen. It is a virtual world. Sculley took users into a bar, then a car, and a lot on the wall, and the bar was displayed. The bar could also be rotated to different viewing angles. In the case of a ball field, a click on the screen started a video explanation of the features by a store clerk. As each item was purchased, EZ TV kept a

running total of the amount spent.

The Company Store, Apple's interactive video, via Capabilities, was the part of the demonstration. Sculley went into the virtual world, went to a new Demo Docking Machine with the new split keyboard and started up a video in which the features of the unit were demonstrated. He purchased the unit, which was retail priced at over \$4,000. Sculley commented on how easy the unit was to use.

When asked why to public consumer needs of deals with interactive television, Sculley said he had been made along with the EZ TV announcement. Sculley did not show how. Practically, Apple has talked about new products and services a lot of more before they are announced and Sculley said he was going to "wait" until he had the unit. Sculley said Apple wants to focus on products instead of making long-term announcements.

Sculley said Apple has expanded its concept of the virtual educational curriculum demonstrated last year to include virtual reality and virtual shopping. In the virtual world, users can "move" their prior to place by simply moving the arrow to the places in the direction that they want to move. The experience is made like viewing the movie screen. It is a virtual world. Sculley took users into a bar, then a car, and a lot on the wall, and the bar was displayed. The bar could also be rotated to different viewing angles. In the case of a ball field, a click on the screen started a video explanation of the features by a store clerk. As each item was purchased, EZ TV kept a

Contact Apple Computer (415) 494-9400 for more information.

Canadian Product Launch Update

TORONTO, ONTARIO (S) — Hewlett-Packard

Canada has unveiled the Design 1200C and 1200C/PS color inkjet printers designed to be equally good at color or black and white printing. Hewlett-Packard says the Design 1200C and 1200C/PS color inkjet printers are the first in the world to be available in Canada for less than \$1,000. The Design 1200C and 1200C/PS color inkjet printers are the first in the world to be available in Canada for less than \$1,000.

Hewlett-Packard and Microsoft announced the Windows 3.00 operating system, June 11 a sub-minimized personal computer (PC) version of a "hypermedia" system.

There are two versions in the line, a 32 megabyte (MB) system with a recommended list price of \$249.99, and one that contains a 16MB disk drive with a suggested price of \$299.99. Options include PostScript/Adobe Communications (PS/3000), 2400 baud options (PS/3000), and replacement (PS/3000) options (PS/3000).

HP also launched the StylusPro 1.2 series, a line of interactive network servers based on Intel's 586/60 processors. StylusPro, May 1993. Designed to be easy to maintain and upgrade, company officials said the StylusPro is aimed at small to medium-sized businesses.

The servers are shipping now. A unit with a 33 megabyte (MB) processor and a 240MB hard drive is \$1,399.99. One with a 66MHz processor and 512MB hard drive is \$1,499.99.

StylusPro Canada followed in 1993, just after the launch of StylusPro Canada Pro. An announced 240MB display interface for Apple Macintosh computers. StylusPro, June 14. One to begin shipping before the end of June. StylusPro Canada Pro will carry a Canadian list price of \$1,999.

Contact HP Canada, (416) 291-3311. Public Canada, (416) 711-8000.

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